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AUTHOR	Armor, David J.
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ABSTRACT

Thomas Pettigrew and his associates have missed the essential point of my study. The essential requirement for sound reasoning on this matter is observance of the distinction among the findings of science, the results of policy, and the dictates of law or morality. I studied the results of existing policies of induced school integration (all of which used, out of necessity, varying amounts of busing). I was not studying the scientific issue of what might happen under various conditions (other than those in effect in the programs studied), nor the legal question of whether it should have happened according to various constitutional interpretations. My task was far simpler. I asked only the question: What has happened? My critics have confused the "has" with the "might" and the "should." This confusion is further compounded by their application of two double standards for the evaluation and use of the evidence on busing. I am accused of having too severe standards and unrealistic expectations about the benefits of induced school integration. But I did not formulate these standards and expectations. They come from the programs themselves, buttressed by several noteworthy studies. I would like to see more voluntary busing on a controlled, experimental basis accompanied by a careful research and evaluation effort. This is the only responsible way to resolve the busing controversy and to establish sound guidelines for policy makers. [For the article by Thomas Pettigrew, see UD 013 498.] (Author/JM)

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The Double Double Standard: a Reply

DAVID J. ARMOR

THOMAS PETTIGREW and his associates have missed the essential point of my study. As a consequence, their comments shed little light on the current public controversy over busing. Indeed, their critique further promulgates the ambiguities and confusions that have prevailed in the field of race relations since Myrdal's *An American Dilemma*.

The essential requirement for sound reasoning in this matter is observance of the distinction among the findings of science, the results of policy, and the dictates of law or morality. I studied the results of existing policies of induced school integration (all of which used, of necessity, varying amounts of busing). I was *not* studying the scientific issue of what *might* happen under various conditions (other than those in effect in the programs studied), nor the legal question of whether it *should* have happened according to various constitutional interpretations. My task was far simpler. I asked only the question: What *has* happened? My critics have confused the *has* with the *might* and the *should*. This confusion is further compounded by their application of two double standards for the evaluation and use of the evidence on busing.

I am accused of having too severe standards and unrealistic expectations about the benefits of induced school integration (which I will hereafter abbreviate as "busing"). But *I* did not formulate these standards and expectations. They come from the programs themselves, buttressed by several noteworthy studies, particularly the Coleman report and the 1967 report of the U.S. Commission on Civil Rights. I do not doubt that existing busing programs are also based upon moral and legal principles, especially the 1954 Supreme Court doctrine that "separate is unequal." But even in the 1954 decision social science findings are cited as "authority" and hence become entangled with constitutional issues.

One expectation stands out above all others: Integrated education will enhance the academic achievement of minority groups, and thereby close (or at least substantially reduce) the achievement gap. There is good reason for the prominence of this belief. The Coleman study revealed a large and consistent achievement gap between white students and most minority groups (with the notable exception of Oriental students). The gap between black and white students av-

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erages about 33 percentile points. This means that for any black child and white child drawn at random from the general population, we can expect the black child's scores to average about 33 percentile points below the white child's. This achievement gap became the main argument against segregated education and the yardstick by which to measure progress. It is unlikely that de facto segregated education would ever have become such a major issue, or that so many communities would have voluntarily initiated busing programs, without this evidence.

This is also the central issue in the critique. The critique makes the incredible claim that looking at black and white achievement differentials is not appropriate, since *both* groups may gain under integration. Not only is there little evidence in support of this claim, but even if it were true there is no way we could conclude from it that integration would solve the educational deprivation of minorities. Would we solve the economic problems of minorities if we raised *everyone's* annual salary by $3,500? Of course not. Such a gain was in fact registered by both whites and non-whites between the 1960 and the 1970 census, but there has been no lessening of the clamor over economic inequality. But money at least has some meaning in absolute terms; this is not the case for academic achievement as measured by testing. As any educational specialist knows, there is no "zero-point" on an achievement test, and progress is always measured on a *relative* basis (i.e., a student's progress relative to a national or local norm). Thus if the black/white achievement gap does not change, there is no way one could conclude that busing is beneficial for minority groups.

I am accused of selecting only "negative" studies and leaving out seven other adequately-designed studies that were more "positive." In fact, I looked at all the studies that I could obtain at the time. Their results were so consistent that I was quite confident about my conclusions. I have now looked at these seven reports (only four of which meet the technical requirements for an adequate study) and have no reason to change my conclusions; nor do I see much evidence to support the authors' optimism.

The only way to settle this issue is to look at some of the findings. I have selected a number of studies that were not in my original review, including some that are cited by Pettigrew and his colleagues. The only criteria I used for my choices were the comprehensiveness of the data and the presence of some of the conditions my critics claim are important for achievement gains (i.e., two-way busing, classroom integration, duration, etc.). I will focus on reading achievement, since this is about the only academic skill which is measured in all of the studies.

The first example is drawn from the Evanston study, which in my opinion is technically one of the best. Also, it fulfills most of the important conditions cited in the critique: A sizable proportion of the students were black (about 20 per cent); almost all classrooms were racially balanced; faculties were integrated (about 10 per cent

black); and the duration of the integration experience was three years. The performance of the fourth-grade cohort is typical:

TABLE 1. *Reading Achievement in Evanston*[1]

RACE	BEFORE INTEGRATION (GRADE 4—1967)	AFTER INTEGRATION (GRADE 7—1970)
White (N=185)	253	278
Black (N=606)	237	253
Gap	**16**	**25**

1 Adapted from Jayjia Hsia, *Integration in Evanston* (Evanston: Educational Testing Service, 1971), Table 11. Scores are based on the STEP reading test; the standard deviation is approximately 15.

The black/white gap is 16 points before integration, or just about one standard deviation (almost identical to Coleman's finding for the sixth grade nationally). After three years of integration the gap has increased to 25 points, and we can see that the *black students in grade seven are performing at the same level that the white students were at in the fourth grade.* In other words, in the seventh grade the black children are three years behind white children in reading achievement. Similar results were found for cohorts starting at grades one and five and for performance on arithmetic achievement tests. We do not know whether the achievement of *both* groups might have been enhanced; but what difference would that make in terms of the possible harmful effects on the black children in Evanston who are forced to compete for academic rewards at so large a disadvantage?

The Berkeley data also afford a good example, for the Berkeley program employed two-way busing (whites to previously majority-black schools and vice versa) and integrated faculties and classrooms. Although the study was cross-sectional, data were presented over a four-year period for six grade levels; thus it is possible to construct a first-grade cohort and follow that same grade (if not exactly the same students) through two years of integration experience:

TABLE 2. *Reading Achievement in Berkeley*[1]

RACE	BEFORE INTEGRATION (GRADE 1—1967)	ONE YEAR OF INTEGRATION (GRADE 2—1968)	TWO YEARS OF INTEGRATION (GRADE 3—1969)
White (N=500+)	1.9	3.1	4.1
Black (N=400+)	1.6	2.2	2.8
Gap	**.3**	**.9**	**1.3**

1 Adapted from Arthur D. Dambacher, "Comparison of Achievement Test Scores Made by Berkeley Elementary Students Pre and Post Integration" (unpublished report, Berkeley Unified School District, 1971), Table 7. Scores are grade equivalents based on the same test—the Stanford Achievement Test (administered in May each year).

We can make inferences about these data if the student turnover rate is not too high, which is a reasonable assumption. In each year the

gap increases, so that after two years of integration the gap is more than one grade level. Again, it is clear that integration has not closed the achievement gap in Berkeley, and the black students are competing at a large disadvantage.

Sacramento is one of the integration programs cited by the authors as indicating positive effects of integration. While it is true that there are some positive results reported for *some* tests, the black/white gap does not change. The following data are for the first-grade cohort:

TABLE 3. *Reading Achievement in Sacramento*[1]

GROUP	BEFORE INTEGRATION (MAY 1966)	AFTER INTEGRATION (MAY 1967)	AFTER INTEGRATION (MAY 1968)
Majority (N=221)	2.1	3.2	4.1
Minority (N=35)	1.6	2.0	2.9
Gap	.5	1.2	1.2

[1] Adapted from Albert J. Sessarego, "A Summary of the Assessments of the District's Integration Programs, 1964-71" (unpublished report, Sacramento City Unified School District, 1971). Scores are grade equivalents based upon the Stanford Reading Test. Minority group includes both black and Mexican-American students.

The resemblances to the Berkeley data are striking. Again we see that while the gap has not widened, it exceeds a whole grade level by the end of the third grade. Sacramento has also reported some interesting data which allow comparison of segregated minority students receiving intensive compensatory services with integrated minority students. Averaging over the Stanford Reading Test in grades one to six, we find that the compensated segregated students gained about 1.1 years, while the integrated students gained about 1.0 years. In other words, it is possible that the slight improvements Sacramento observed in achievement of integrated students compared to *non-compensated* segregated students (for some grades on some tests) are due to differences in the services of instruction received at the integrated schools and not to integration per se. While Coleman found that school facilities and staff were not major contributors to achievement differentials, he did not say that they had *no* effect whatsoever.

Another "positive" example cited by the critique is a study of integration via school "pairing" in New York City in 1965. This study is particularly interesting in that an attempt is made to compare integrated students with both black and white segregated students. While the study gives no indication about classroom or faculty integration (which are important for educational benefits, according to my critics), and while the paired school is not majority-white (another supposedly crucial condition), it does afford us a look at the black/white gap in reading achievement for a fifth-grade cohort. As can clearly be seen in Table 4, for the integrated students the achievement gap is large (starting at almost three grade levels) and increases (to almost three and one-half grade levels) after one year of integration. The "positive" result in this study is that the integrated

TABLE 4. *Reading Achievement in New York*[1]

SCHOOL	RACE	BEFORE INTEGRATION (APRIL 1965)	AFTER INTEGRATION (MAY 1966)	GAIN
Integrated, paired school	White (N=30)	6.8	8.5	1.7
	Black (N=32)	4.0	5.1	1.1
	Gap	**2.8**	**3.4**	
Segregated schools	White (N=57)	5.7	7.2	1.5
	Black (N=80)	3.5	4.4	.9
	Gap	**2.2**	**2.8**	

1 Adapted from I. W. Stone, *The Effects of One School Pairing on Pupil Achievement . . .* (unpublished Ph.D. Thesis, New York University, 1968), Tables 18 and 20. Scores are grade equivalents on the Metropolitan Achievement Reading Test.

black students gained 1.1 grades (or 11 months) while the segregated black students gained .9 (or nine months). It does not seem to me that this difference provides much ground for optimism, particularly since the segregated white students also gained about two months less than the integrated white students. That is, the slight difference we observe might be due to differences in instruction content or style and not due to the effect of integration.

The argument of Pettigrew and his colleagues that perhaps white students also gain in achievement from the integration experience per se demands close scrutiny. While it makes sense to argue that black students might gain by being in a classroom environment with higher-achieving white students (the so-called "peer" effect prominent in the Coleman study), it makes no sense at all to argue that white students will gain by being in a classroom environment with lower-achieving black students. What mechanism could possibly be operating that produces *opposite* peer effects for the two groups? It seems to me that my critics' reasoning is getting fuzzy here.

But this is not the crucial issue anyway. One of the main points of my study was to show that black achievement is not being helped in any significant way by busing, and that therefore we have to raise the possibility of harmful psychological effects due to the achievement gap. The small gain of two months for the paired black students in New York is little consolation for their being placed in an environment where they must compete for grades with students *three years ahead* of them in academic growth. The authors completely ignore this issue throughout their critique.

The critique cites another, more recent study of Project Concern (Hartford and New Haven) that shows more positive results. I originally described the Project Concern studies as showing "mixed" results. The new study does not change my view; in fact, it bears great similarity to the other studies presented here. Like the New York study, it presents results for both races in both integrated and segregated environments. It is a particularly good example in that the bused pupils received a variety of compensatory services (such

as minority teachers and aids recruited from the sending school). The results for the second grade are typical:

TABLE 5. *Reading Achievement in Project Concern*[1]

SCHOOL	RACE	BEFORE INTEGRATION (1971)	AFTER INTEGRATION (1972)	GAIN
Integrated school	White (N=22)	3.4	4.7	1.3
	Black (N=9)	2.1	2.9	.8
	Gap	**1.3**	**1.8**	
Segregated schools	White (N=20)	3.9	5.2	1.3
	Black (N=16)	1.8*	2.4*	.6*
	Gap	**2.1**	**2.8**	

[1] Adapted from Barbara R. Heller, *et al.*, "Project Concern, Westport, Connecticut" (New York: Center for Urban Education, 1972), Table 3. Scores are grade equivalents on the Metropolitan Achievement Reading Test. The asterisks indicate that the scores for the segregated black students have been adjusted to reflect a shorter testing period.

Again, we can see that the achievement gap increases for the integrated students, starting out at 13 months and ending at almost two years. We have very much the same situation as in the New York pairing study; the integrated black students gain slightly more than the segregated black students (two months), but the achievement differential is still large and increases over the year. Notice, however, that in this case the segregated white students gain as much as the integrated white students.

My critics cite other studies not presented here. As I have already said, three of them (Rochester, Goldsboro, N. C., and Newark) did not qualify according to my criteria for an adequate study; they did not use the same achievement tests both before and after integration. The Philadelphia study is of limited utility since it dealt only with black students with very high I.Q.'s. The Buffalo study showed mixed results, with one grade showing greater gains for integrated, one grade showing greater gains for segregated, and a third grade showing a small (two months) gain for integrated black students. But in all three grades the white integrated students showed even greater gains, indicating the same increasing achievement gap seen in the other studies.

In view of all of these studies, I can see no reason to change my conclusion that "to date there is no published report of *any* strictly educational reform which has been proven substantially to affect academic achievement; school integration programs are no exception." It was my purpose to show that existing programs have not demonstrated a consistent and important effect on various expected benefits (especially achievement). It was not my intention to *prove* that achievement *could not* be affected, only to show that it *has not* been affected by *existing* programs. Therefore, my critics' argument that the programs I looked at did not fulfill the proper conditions for integration is beside the point. But I will go further than that:

They have presented no convincing evidence that any programs—even those fulfilling their conditions—are having an important effect. There is no clear evidence in the studies mentioned that they fulfilled their conditions, nor is there *any* evidence in these studies—regardless of the conditions—that school integration will close the achievement gap by "approximately a fourth." Of course, it is still true that, under some conditions, integration *might* have an effect. But those who believe this premise will have to produce far better evidence than is currently available.

THE methodological critique of the Boston METCO study is equally irrelevant to my conclusions and recommendations. I would never have made policy statements based on the METCO research without seeing a considerable amount of supporting evidence. I think the reader can see from what has been presented that there is, indeed, a great deal of corroboration. Methodological critiques are always liable to a common fallacy: The existence of technical weaknesses in a study does not prove the converse of its findings. I believe in the METCO findings because they were consistent with many other studies, not because the METCO research was infallible. I am certainly cognizant of some of the limitations of the METCO research pointed out by the critique. Any single social science study could be given a similar treatment. Research conditions in policy evaluation studies are seldom ideal; this is why a social scientist must look for consistency across many studies before coming to any conclusions.

I do not agree with all of the criticisms of the METCO study made by Pettigrew and his associates. In particular, I take issue with their statement that many of the METCO control group students attended integrated schools and therefore were not a proper comparison group. Our control groups were screened for attendance at Boston public schools in the black community, most of which are predominantly black (particularly the elementary schools). Moreover, even those few control group students whose neighborhood school is majority-white still provide a proper comparison, not only because the proportions of minority and lower-class white students are higher in these schools, but also because the Boston schools are presumed unable to provide the kind of quality education found in middle-class suburban schools. After all, this is the whole rationale behind METCO and similar programs, and it must be the belief of many black parents who participate in METCO even though their children could go to majority-white neighborhood schools in Boston.

But the data presented in Table 2 of the critique are misleading in other respects. First, the authors did not use the complete METCO research records to identify schools attended by the control sample; instead, they tried to track down students using incomplete listings of students in a Boston public school register. Not surprisingly, then, they have no data on many of the control students—particularly those in the critical elementary grades. Second, it is not stressed that many of the secondary school control students were in transitional neighborhood schools with large and growing proportions of minority stu-

dents. For example, of the 10 senior high students listed as integrated, four attended a "border-area" high school with an increasing minority enrollment of 27 per cent in 1968 and 34 per cent in 1969; another attended a high school whose minority enrollment increased from 42 to 64 per cent during these two years; and two others attended a school with a 43 per cent minority enrollment.

I undertook a complete examination of the original research records using questionnaires filled out by METCO parents in 1970 just prior to the second year of the research. Of the 36 (out of 41) elementary control students for whom there were reliable data, only 13 can be identified as attending predominantly white schools. Of the 23 students attending majority-black schools, only five attended schools with a substantial proportion of white students (all of whom were in one school whose minority enrollment increased from 53 per cent in 1968 to 64 per cent in 1969). In other words, in the elementary grades—which are, according to the critique, the more crucial years for achievement changes—complete records indicate that nearly two thirds of the control students attended segregated schools.

What is especially misleading (if not irresponsible) about all this is the authors' use of their incomplete data to conclude that it "renders [my] METCO research of no scientific interest in the study of busing and school desegregation." The clear implication here is that the control group students who went to predominantly white schools might have made large achievement gains which overshadowed lesser gains made by control group students in segregated schools. This would, in turn, make the control group gains spuriously high, perhaps even to the point of masking gains made by METCO students. But we do not have to engage in a lot of verbiage and speculation about this; we can examine the relevant elementary data directly:

TABLE 6. *Reading Achievement Gains for METCO and Control Students in the Elementary Grades*[1]

GROUP	GRADES 3 AND 4	GRADES 5 AND 6
Control students in segregated schools (N's=8 and 10)	.2	.8
Full control sample in original study (N's=14 and 27)	.3	.7
METCO as reported in original study (N's=88 and 59)	.4	.5

1 All figures are achievement gains in grade equivalents. For the fifth and sixth grade group, the five students attending the 53 per cent minority school have been excluded for the sake of purity; if they are included, the average gain for the controls in segregated schools actually drops to .7 years.

The data show clearly that the segregated control students do not differ in any important and consistent way from the full control sample (or the METCO sample, for that matter). A similar result also occurred for the junior high students; the high school student sample was too small to make any certain conclusion. What this means, then,

is that *my original conclusion—that METCO achievement gains are not consistently larger than the control group—also holds when the control group consists only of those students attending inner-city segregated schools.* As has been so often the case throughout this discussion, when rhetoric is replaced by hard, objective data, there does not appear to be very much of substance in my critics' arguments.

THE other major finding with which the critique finds fault is that race relations seem to worsen as a result of induced school integration. Pettigrew and his colleagues seem to be somewhat ambivalent on this point. On the one hand, they criticize my conclusion on methodological grounds, such as the fact that the third-wave questionnaire was given in the white school for the METCO students and at home for the control students. (They ignore the fact that the second wave—which was given under the same conditions as the first wave—already revealed the trend of increased separatism among METCO students.) This would make one think they believe that contact does not increase racial prejudice and hostility. But at the same time they argue that the various indicators I used actually reflect "positive" changes in black self-respect—and therefore do not run counter to the expectations fostered by the integration policy model. Let me take up these two different perspectives in order.

My conclusions on race relations, like those on achievement, were not based only on METCO data. There was support from both the Useem and Riverside studies; but more important, an entirely distinct study of school integration, using the identical separatism index that was employed in the METCO research, gave strong supporting evidence. This study was a cross-sectional evaluation of "A Better Chance" (ABC), a program that places talented black high school students in white prep schools. Its data were not ready in time for use in my original article, but I can report the relevant figures now:

TABLE 7. *Black Separatism in the ABC Program*[1]

GRADE	BLACK ABC PREP SCHOOL STUDENTS	BLACK SEGREGATED SCHOOL STUDENTS	WHITE PREP SCHOOL STUDENTS
Tenth graders (N=135, 130, 134)	1.4	1.3	1.1
Twelfth graders (N=125, 137, 103)	1.7	1.0	1.0

[1] Adapted from George Perry. Scores are from a separatism index ranging from 0 to 4, where 4 means most separatist. The differences between the black ABC and public school students is not significant in the tenth grade, but is significant at beyond the .001 level for the twelfth graders. The vast majority of black ABC students joined the program in the tenth grade.

We see that the twelfth-grade ABC students (most of whom started in the tenth grade) score 1.7 on the index while their tenth-grade counterparts score 1.4. The black control groups (almost all of whom attend predominantly black schools) actually show the *opposite* trend from 1.3 at the tenth grade to 1.0 at the twelfth grade. The data

are cross-sectional (that is, the twelfth graders are not the same group as the tenth graders), so we cannot claim a causal confirmation from this study alone. Nonetheless, the ABC tenth and twelfth graders are very similar in most important respects, and the public school control sample consists of black students matched with the ABC students on important characteristics such as ability and family background. Therefore, given the identical findings in the METCO research, I must conclude that there is a strong likelihood that induced school integration enhances separatist ideology as measured by my index.

But is this convergence invalidated by technical weaknesses in the METCO study? The critique is correct in pointing out that the attitude questionnaires were given to the METCO and control students under different conditions in the second year of the study. It also calls attention to the fact that a substantial portion of the control students at the junior and senior high levels (the only levels to take the attitude tests) attended majority-white schools. But the critique fails to note that this "weakness" of the original study can actually be used to further test contact theory by comparing integrated control group students with segregated control group students—both groups having filled out questionnaires under identical conditions:

TABLE 8. *Black Separatism Gains for METCO and Control Students in the Secondary Grades*[1]

	CONTROL STUDENTS IN MAJORITY-BLACK SCHOOLS	CONTROL STUDENTS IN MAJORITY-WHITE SCHOOLS	METCO STUDENTS
Gain	—.1	.3	.4
N	(17)	(16)	(135)

[1] Gain scores for the separatism index reported in the original study for a two-year period. The negative change means that separatist attitudes declined.

In my original study, I reported an over-all gain for the control group of .1. It can now be seen that the slight increase in separatism for the control group was actually due to the subgroup of students in inner-city integrated schools; their gain of .3 is almost as large as the .4 gain recorded for the METCO students. The segregated black students actually *declined* in their separatism scores—much as would be predicted by the ABC data presented earlier. Whatever interpretation one wishes to apply to these results, it seems clear that the METCO finding reported in the original study is not simply an artifact of questionnaire administration or of a faulty control group.

The available evidence supports the conclusion that induced school integration, by enhancing black identity and solidarity, may increase separatism and racial hostility; no evidence is presented by the critique that shows the converse. But is this a negative finding? I admitted in my original study that it might not be interpreted as such; on this point I obviously have no quarrel with my critics. I do,

however, maintain that *this is not an expected finding*, either according to social science (which has long held to the Allport thesis that contact will reduce prejudice) or according to educational policy makers, most of whom stress the beneficial contribution of contact to racial understanding and harmony. And if it is contrary to expectations, it seems to me that this has very definite policy implications. Although the Supreme Court intended its 1954 ruling in favor of school integration to improve the self-concept of black people, it is highly doubtful that it expected this to be done at the expense of an increase in black hostility toward whites or white hostility toward blacks.

It seems clear that the biggest difference between my perspective and that of the critique is in regard to the policy implications of all this research. They have failed to show that the findings in my original five-city study were untrue; they have not provided convincing evidence that other programs have succeeded where these have failed; they have ignored the possibility of harmful effects. In short, their opposition to my recommendation against mandatory busing is based mainly upon the *possibility* that under certain conditions induced school integration *might* have substantial beneficial effects on minority students. In this regard, given Pettigrew's well-known use of social science findings in support of integration, their conclusions rely heavily upon the application of a double double standard.

Their belief in the possibility of educational benefits rests upon their highly questionable rejection of black and white achievement comparisons and upon a variety of small and inconsistent fluctuations in the achievement of bused students. This leads them to hold that my "firm policy conclusion against 'mandatory busing' is not substantiated by the evidence presented." Apparently, then, their view is that mandatory busing (or induced integration), whether ordered by the courts or by a local school board, is strictly a moral and constitutional issue and does not require any justification involving educational benefits. They have therefore placed the burden of proof not upon those who back the social intervention but upon those who object to the intervention.

I cannot agree with the assumptions behind this reasoning, with the kind of morality it represents, or with the implicit suggestion that social science should be used only when it favors the values of the social scientist. There is no doubt in my mind that our democratic values prohibit laws or actions that force the separation of racial or ethnic groups; I believe that the 1954 decision of the Supreme Court aimed to eliminate this compulsory separation of the races in the schools. But I also believe that compulsory integration—in the absence of clear evidence that the segregation was itself purposive and mandatory—gains little support from these same democratic principles. This is why most legal decisions and policy actions in the school desegregation movement have rested very heavily upon the assumed educational benefits of integration. In the absence of a clear constitu-

tional or moral mandate to force racial balance in regions of de facto segregation, supporters of school integration turned to social science —where there was an unending (and unquestioned) supply of documentation of both the damage from racial segregation and the benefits of integration. This was the case in the 1954 decision (even though forced segregation was at issue); I believe it was true for the 1967 report of the U.S. Commission on Civil Rights, as exemplified in its summary statement that the "conclusions drawn by the U.S. Supreme Court about the impact upon children of segregation compelled by law . . . applies to segregation not compelled by law"; and I believe it is true for the present critique, which tries very hard—but without success—to challenge the findings of current research on induced integration.

But it follows that if the current research does not support the thesis of educational benefits, the policy must be questioned. Since the intervention has been based upon what I would call "preliminary" social science findings (very little of the data until recently was based on studies of *actual* induced integration), the burden of proof must fall upon those policy makers who support mandatory busing. The first double standard of the critique, then, is the burden of proof: To initiate the action one can use any type of social science data, whether or not it directly tests the policy in question and regardless of its technical adequacy. But once the integration policy is in full force, it cannot be questioned unless one can *conclusively prove* that school integration *cannot* have an effect on educational benefits. As far as I am concerned, the current data are far more adequate to test the efficacy of integration than was the research that existed prior to induced integration programs. Since it can in no way be concluded that the original research *proved* the existence of educational benefits, my critics clearly apply a double standard when they claim that the absence of benefits has not been proven and therefore we should not decide against mandatory busing.

The second double standard is applied by the critique's assertion that the whole matter is really a constitutional issue, to be decided by "the Court's interpretation of the 14th Amendment." The double standard here is obvious. One willingly applies social science findings to public policy if they are in accordance with one's values, but declares them irrelevant if they contradict one's values. Pettigrew's resort to this tactic recalls a press conference reported in the *New York Times* on June 11, 1972, in which Dr. Kenneth Clark—whose scientific research and assistance was so important in the 1954 Supreme Court decision—was quoted as saying that "courts and political bodies should decide questions of school spending and integration, not on the basis of uncertain research findings, but on the basis of the constitutional and equity rights of human beings." The double standard could not be expressed more graphically.

It will be disastrous for the social sciences if they allow themselves to be used in this way. We social scientists depend upon society for our existence; our credibility is undermined if we do not present and

use our findings in a consistent manner. The responsible use of social science in policy matters requires that we state the facts as they occur, no matter how painful their implications. And if we are willing to use facts to initiate policy reform, we must likewise use them to question existing policy. I believe that in the long run society will benefit more from decisions based on facts than from ideology contradicted by facts.

I do not want to imply that we should engage in social intervention only when it is supported by social science or stop any social intervention when the findings of science question its support. Social science cannot be brought to bear on all issues of policy, sometimes for technical reasons and sometimes for ethical reasons. Some policies cannot be researched, and some policies are demanded by constitutional principles or by common morality. But when policies are based upon empirical considerations that social science can study, there is a way that policy and science can proceed in concert. That way utilizes the method of social experimentation and evaluation—a method that has long been prominent in the medical sciences. We would not think of prescribing a new drug without first obtaining sound evidence of both its efficiency and its harmlessness by experimental evaluation of its actual effects on human subjects (usually volunteers). Why should not a similar standard be applied to proposed remedies for curing social ills? Our assumptions about social behavior have been proven wrong in the past, and they will be proven wrong in the future. The only way to make reasonably sure that the remedy is not worse than the malady is to engage in careful research under realistic conditions. That our government is beginning to adopt the principle of social experimentation is shown by Congress's recent decision to perform a large-scale, long-term experiment to test the efficiency of a guaranteed income plan before implementing it for the whole nation. This is a welcome sign for those who want to see a closer connection between social science and public policy.

It is this kind of philosophy that led me to favor voluntary busing programs, not any evidence that voluntary busing is more efficacious than mandatory busing. I do not think the evidence pointing to an absence of educational benefits or the evidence for possible harmful effects is strong enough to justify a prohibition of busing for those families and communities that desire it—regardless of their motives. On the contrary, I would like to see more voluntary busing on a controlled, experimental basis accompanied by a careful research and evaluation effort. This is the only responsible way to resolve the controversy and to establish sound guidelines for policy makers.